Substitute Form PTO-1449
(Modified)U.S. Department of Commerce
Patent and Trademark OfficeAttorney's Docket No.
09531-203US1Application No.
10/069,605
**Information Disclosure Statement
by Applicant**
 (Use several sheets if necessary)
 (37 CFR §1.65(b))
Applicant
Keith M. Skubitz et al.Filing Date
February 26, 2002Group Art Unit
1647 1649**U.S. Patent Documents**

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
GE	AA	5,571,710	11/05/96	Barnett et al.			
GE	AB	5,595,887	01/21/97	Coolidge et al.			
GE	AC	5,965,710	10/12/99	Bodmer et al.			

Foreign Patent Documents or Published Foreign Patent Applications

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation
							Yes No
GE	AD						

Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
GE	AE	Afar et al., "Tyrosine phosphorylation of biliary glycoprotein, a cell adhesion molecule related to carcinoembryonic antigen," <i>Biochimica et Biophysica Acta</i> , 1992, 1134:46-52
	AF	Bates et al., "A predicted three-dimensional structure for the carcinoembryonic antigen (CEA)," <i>FEBS Lett.</i> , 1992, 301:207-214
	AG	Beauchemin et al., "Association of biliary glycoprotein with protein tyrosine phosphatase SHP-1 in malignant colon epithelial cells" <i>Oncogene</i> , 1997, 14:783-790
	AH	Beauchemin et al., "Redefined nomenclature for members of the carcinoembryonic antigen family," <i>Exp. Cell Res.</i> , 1999, 252:243-249
	AI	Benchimol et al., "Carcinoembryonic antigen, a human tumor marker, functions as an intercellular adhesion molecule," <i>Cell</i> , 1989, 57:327-334
	AJ	Bishayee et al., "Ligand-induced Dimerization of the Platelet-derived Growth Factor Receptor," <i>J. Biol. Chem.</i> , 1989, 264:11699-11705
	AK	Blechman et al., "The fourth immunoglobulin domain of the stem cell factor receptor couples ligand binding to signal transduction," <i>Cell</i> , 1995, 80:103-113
	AL	Boehm et al., "Extended glycoprotein structure of the seven domains in human carcinoembryonic antigen by X-ray and neutron solution scattering and an automated curve fitting procedure: implications for cellular adhesion," <i>J. Mol. Biol.</i> , 1996, 259:718-736
	AM	Bos et al., "CD66 receptor specificity exhibited by neisserial Opa variants is controlled by protein determinants in CD66 N-domains," <i>Proc. Natl. Acad. Sci. USA</i> , 1998, 95:9584-9589
	AN	Bos et al., "Differential Recognition of Members of the Carcinoembryonic Antigen Family by Opa Variants of <i>Neisseria gonorrhoeae</i> ," <i>Infection and Immunity</i> , 1997, 65:2353-2361
	AO	Brümmner et al., "Association of pp60 ^{c-src} with biliary glycoprotein (CD66a), an adhesion molecule of the carcinoembryonic antigen family downregulated in colorectal carcinomas," <i>Oncogene</i> , 1995, 11:1649-1655
	AP	Carlos and Haran, "Leukocyte-endothelial adhesion molecules," <i>Blood</i> , 1994, 84:2068-2101
V	AQ	Chen and Gotschlich, "CGM1a antigen of neutrophils, a receptor of gonococcal opacity proteins," <i>Proc. Natl. Acad. Sci. USA</i> , 1996, 93:14851-14856

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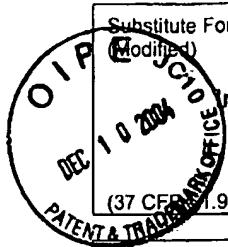
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GE	AR	Cochet et al., "Demonstration of Epidermal Growth Factor-induced Receptor Dimerization in Living Cells Using a Chemical Covalent Cross-linking Agent," <i>J. Biol. Chem.</i> , 1988, 263:3290-3295
	AS	Daniel et al., "Determination of the specificities of monoclonal antibodies recognizing members of the CEA family using a panel of transfectants," <i>Int. J. Cancer</i> , 1993, 55:303-310
	AT	Dveksler et al., "Cloning of the mouse hepatitis virus (MHV) receptor: expression in human and hamster cell lines confers susceptibility to MHV," <i>J. Virol.</i> , 1991, 65:6881-6891
	AU	Edlund et al., "Calmodulin Binds to Specific Sequences in the Cytoplasmic Domain of C-CAM and Down-regulates C-CAM Self-association," <i>J. Biol. Chem.</i> , 1996, 271:1393-1399
	AV	Gray-Owen et al., "CD66 carcinoembryonic antigens mediate interactions between Opa-expressing <i>Neisseria gonorrhoeae</i> and human polymorphonuclear phagocytes," <i>EMBO J.</i> , 1997, 16:3435-3445
	AW	Holmes et al., "Coronavirus receptor specificity," <i>Coronaviruses Molecular Biology and Virus-Host Interactions</i> , 1994, 342:261-266
	AX	Hsieh et al., "Tumor suppressive role of an androgen-regulated epithelial cell adhesion molecule (C-CAM) in prostate carcinoma cell revealed by sense and antisense approaches," <i>Cancer Res.</i> , 1995, 55:190-197
	AY	Hunter et al., "Evidence for regulated dimerization of cell-cell adhesion molecule (C-CAM) in epithelial cells," <i>Biochem. J.</i> , 1996, 320:847-853
	AZ	Jantscheff et al., "A CD66a-specific, activation-dependent epitope detected by recombinant human signal chain fragments (scFvs) on CHO transfecants and activated granulocytes," <i>J. Leukoc. Biol.</i> , 1996, 59:891-901
	AAA	Kammerer and von Kleist, "CEA expression of colorectal adenocarcinomas is correlated with their resistance against LAK-cell lysis," <i>Int. J. Cancer</i> , 1994, 57:341-347
	ABB	Kammerer and von Kleist, "The carcinoembryonic antigen (CEA) modulates effector-target cell interaction by binding to activated lymphocytes," <i>Int. J. Cancer</i> , 1996, 68:457-463
	ACC	Kammerer et al., "Biliary glycoprotein (CD66a), a cell adhesion molecule of the immunoglobulin superfamily, on human lymphocytes: structure, expression and involvement in T cell activation," <i>Eur. J. Immunol.</i> , 1998, 28:3664-3674
	ADD	Khan et al., "Identification of three new genes and estimation of the size of the carcinoembryonic antigen family," <i>Genomics</i> , 1992, 14:384-390
	AEE	Kleinerman et al., "Consistent expression of an epithelial cell adhesion molecule (C-CAM) during human prostate development and loss of expression in prostate cancer: Implication as a tumor suppressor," <i>Cancer Res.</i> , 1995, 55:1215-1220
	AFF	Kleinerman et al., "Suppression of human bladder cancer growth by increased expression of C-CAM1 gene in an orthotopic model," <i>Cancer Res.</i> , 1996, 56:3431-3435
	AGG	Kuijpers et al., "CD66 Nonspecific Cross-reacting Antigens Are Involved in Neutrophil Adherence to Cytokine-activated Endothelial Cells," <i>J. Cell Biol.</i> , 1992, 118:457-466
	AHH	Kuijpers et al., "Cross-linking of the carcinoembryonic antigen-like glycoproteins CD66 and CD67 induces neutrophil aggregation," <i>J. Immunol.</i> , 1993, 151:4934-4940
	AII	Kunath et al., "Inhibition of colonic tumor cell growth by biliary glycoprotein," <i>Oncogene</i> , 1995, 11:2375-2382
✓	AJJ	Leusch et al., "Binding of <i>Escherichia coli</i> and <i>Salmonella</i> strains to members of the carcinoembryonic antigen family: differential binding inhibition by aromatic α -glycosides of mannose," <i>Infection and Immunity</i> , 1991, 59:2051-2057

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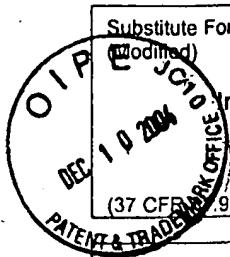
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Other Documents (include Author, Title, Date, and Place of Publication)

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GE	AKK	Lisowska et al., "The dimeric structure of carcinoembryonic antigen (CEA)," <u>Biochem. Biophys. Res. Comm.</u> , 1983, 115:206-211
	ALL	Lund-Johansen et al., "Activation of human monocytes and granulocytes by monoclonal antibodies to glycosylphosphatidylinositol-anchored antigens," <u>Eur. J. Immunol.</u> , 1993, 23:2782-2791
	AMM	Luo et al., "Suppression of tumorigenicity of breast cancer cells by an epithelial cell adhesion molecule (C-CAM1): the adhesion and growth suppression are mediated by different domains," <u>Oncogene</u> , 1997, 14:1697-1704
	ANN	Mayne et al., "Antibody By114 is selective for the 90 kD PI-linked component of the CD66 antigen: a new reagent for the study of paroxysmal nocturnal haemoglobinuria," <u>Br. J. Haematol.</u> , 1993, 83:30-38
	AOO	Metze et al., "Distribution and ultrastructural localization of the carcinoembryonic antigen (CEA) family in normal skin and cutaneous tumors," <u>J. Invest. Dermatol.</u> , 1992, Vol. 98, Abstract P165
	APP	Möller et al., "Biliary glycoprotein (BGP) expression on T cells and on a natural-killer-cell sub-population," <u>Int. J. Cancer</u> , 1996, 65:740-745
	AQQ	Morales et al., "Regulation of Human Intestinal Intraepithelial Lymphocyte Cytolytic Function by Biliary Glycoprotein (CD66a)," <u>J. Immunol.</u> , 1999, 163:1363-1370
	ARR	Nagel et al., "Genomic organization, splice variants and expression of CGM1, a CD66-related member of the carcinoembryonic antigen gene family," <u>Eur. J. Biochem.</u> , 1993, 214:27-35
	ASS	Neumaier et al., "Biliary glycoprotein, a potential human cell adhesion molecule, is down-regulated in colorectal carcinomas," <u>Proc. Natl. Acad. Sci. USA</u> , 1993, 90:10744-10748
	ATT	Nollau et al., "Dysregulation of carcinoembryonic antigen group members CGM2, CD66a (biliary glycoprotein), and nonspecific cross-reacting antigen in colorectal carcinomas," <u>Am. J. Pathol.</u> , 1997, 151:521-530
	AUU	Nollau et al., "Expression of CD66a (Human C-CAM) and other members of the carcinoembryonic antigen gene family of adhesion molecules in human colorectal adenomas," <u>Cancer Research</u> , 1997, 57:2354-2357
	AVV	Öbrink, "CEA adhesion molecules: multifunctional proteins with signal-regulatory properties," <u>Current Opinion in Cell Biology</u> , 1997, 9:616-626
	AWW	Oikawa et al., "A Specific Heterotypic Cell Adhesion Activity between Members of Carcinoembryonic Antigen Family, W272 and NCA, Is Mediated by N-domains," <u>J. Biol. Chem.</u> , 1991, 266:7995-8001
	AXX	Oikawa et al., "Cell adhesion activity of non-specific cross-reacting antigen (NCA) and carcinoembryonic antigen (CEA) expressed on cho cell surface: hemophilic and heterophilic adhesion," <u>Biochem. Biophys. Res. Comm.</u> , 1989, 164:39-45
	AYY	Oikawa et al., "Homotypic and heterotypic Ca^{++} -independent cell adhesion activities of biliary glycoprotein, a member of carcinoembryonic antigen family, expressed on CHO cell surface," <u>Biochem. Biophys. Res. Comm.</u> , 1992, 186:881-887
	AZZ	Pensiero et al., "Binding of the coronavirus mouse hepatitis virus A59 to its receptor expressed from a recombinant vaccinia virus depends on posttranslational processing of the receptor glycoprotein," <u>J. Virol.</u> , 1992, 66:4028-4039
▼	AAAA	Pignatelli et al., "Carcinoembryonic antigen functions as an accessory adhesion molecular mediating colon epithelial cell - collagen interactions," <u>Proc. Natl. Acad. Sci. USA</u> , 1990, 87:1541-1545

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GE	ABBB	Prado et al., "Susceptibility of colorectal-carcinoma cells to natural-killer-mediated lysis: relationship to CEA expression and degree of differentiation," <u>Int. J. Cancer</u> , 1995, 61:854-860
	ACCC	Prall et al., "CD66a (BGP), an adhesion molecule of the carcinoembryonic antigen family, is expressed in epithelium, endothelium, and myeloid cells in a wide range of normal human tissues," <u>J. Histochem. Cytochem.</u> , 1996, 44:35-41
	ADDD	Riehdorf et al., "Differential Expression of CD66a (BGP), a Cell Adhesion Molecule of the Carcinoembryonic Antigen Family, in Benign, Premalignant, and Malignant Lesions of the Human Mammary Gland," <u>J. Histochem. Cytochem.</u> , 1997, 45:957-964
	AEEE	Rojas et al., "Biliary glycoprotein, a member of the immunoglobulin supergene family, functions <i>in vitro</i> as a Ca ²⁺ -dependent intercellular adhesion molecule," <u>Cell Growth and Differentiation</u> , 1990, 1:527-533
	AFFF	Sauter et al., "Binding of nonspecific cross-reacting antigen, a granulocyte membrane glycoprotein, to <i>Escherichia coli</i> expressing type 1 fimbriae," <u>Infection and Immunity</u> , 1991, 59:2485-2493
	AGGG	Sippel et al., "Bile Acid Efflux Mediated by the Rat Liver Canalicular Bile Acid Transport/Ecto-ATPase Protein Requires Serine 503 Phosphorylation and Is Regulated by Tyrosine 488 Phosphorylation," <u>J. Biol. Chem.</u> , 1994, 269:19539-19545
	AHHH	Sippel et al., "Site-directed Mutagenesis within an Ectoplasmic ATPase Consensus Sequence Abrogates the Cell Aggregating Properties of the Rat Liver Canalicular Bile Acid Transporter/Ecto-ATPase/Cell CAM 105 and Carcinoembryonic Antigen," <u>J. Biol. Chem.</u> , 1996, 271:33095-33104
	AIII	Skubitz et al., "Antiserum to carcinoembryonic antigen recognizes a phosphotyrosine-containing protein in human colon cancer cell lines," <u>FEBS Lett.</u> , 1993, 318:200-204
	AJJJ	Skubitz et al., "CD63 associates with tyrosine kinase activity and CD11/CD18, and transmits an activation signal in neutrophils," <u>J. Immunol.</u> , 1996, 157:3617-3626
	AKKK	Skubitz et al., "CD66 family members are associated with tyrosine kinase activity in human neutrophils," <u>J. Immunol.</u> , 1995, 155:5382-5390
	ALLL	Skubitz et al., "CD66 monoclonal antibodies recognize a phosphotyrosine-containing protein bearing a carcinoembryonic antigen cross-reacting antigen on the surface of human neutrophils," <u>J. Immunol.</u> , 1992, 148:852-860
	AMMM	Skubitz et al., "CD50 monoclonal antibodies inhibit neutrophil activation," <u>J. Immunol.</u> , 1997, 159:820-828
	ANNN	Skubitz et al., "CD66a, CD66b, CD66c, and CD66d each independently stimulate neutrophils," <u>J. Leukocyte Biol.</u> , 1996, 60:106-117
	AOOO	Skubitz et al., "Monoclonal antibodies that recognize lacto-N-fucopentose III (CD15) react with adhesion-promoting glycoprotein family (LFA-1/HMAC-1/GP 150,95) and CR1 on human neutrophils," <u>J. Immunol.</u> , 1987, 139:1631-1639
	APPP	Skubitz et al., "Summary of the CD66 Cluster Workshop," <u>Leukocyte Typing VI</u> , Kishimoto et al. (eds.), Garland Publishing, Inc., New York and London, pp. 992-1000
	AQQQ	Skubitz et al., "Stimulation of Neutrophil Adhesion to Endothelial Cells by Synthetic Peptides of CD66a," <u>Molecular Biology of the Cell</u> , 1999, Vol. 10, supplemental, Abstract 452 on page 78A
	ARRR	Skubitz et al., "Synthetic Peptides of CD66a Stimulate Neutrophil Adhesion to Endothelial Cells," <u>J. Immunol.</u> , 2000, 164(8):4257-4264
▼	ASSS	Springer, "Traffic signals for lymphocyte recirculation and leukocyte emigration: the multistep paradigm," <u>Cell</u> , 1994, 76:301-314

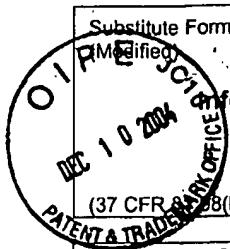
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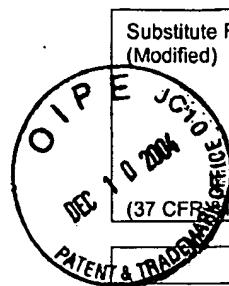


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GE	ATTT	Stocks and Kerr, "Stimulation of neutrophil adhesion by antibodies recognizing CD15 (Le ^x) and CD15-expressing carcinoembryonic antigen-related glycoprotein NCA-160," <u>Biochem. J.</u> , 1992, 288:23-27
	AUUU	Stocks et al., "CD66: role in the regulation of neutrophil effector function," <u>Eur. J. Immunol.</u> , 1996, 26:2924-2932
	AVVV	Stocks et al., "CD66-dependent neutrophil activation: a possible mechanism for vascular selectin-mediated regulation of neutrophil adhesion," <u>J. Leukocyte Biol.</u> , 1995, 58:40-48
	AWWW	Stoffel et al., "Monoclonal, anti-domain and anti-peptide antibodies assign the molecular weight 160,000 granulocyte membrane antigen of the CD66 cluster to a mRNA species encoded by the biliary glycoprotein gene, a member of the carcinoembryonic antigen gene family," <u>J. Immunol.</u> , 1993, 150:4978-4984
	AXXX	Tanaka et al., "Decreased expression of biliary glycoprotein in hepatocellular carcinomas," <u>Int. J. Cancer</u> , 1997, 74:15-19
	AYYY	Teixeira et al., "The N-Domain of the Biliary Glycoprotein (BGP) Adhesion Molecule Mediates Homotypic Binding: Domain Interactions and Epitope Analysis of BGpc," <u>Blood</u> , 1994, 84:211-219
	AZZZ	Tetteroo et al., "Neutrophil activation detected by monoclonal antibodies," <u>J. Immunol.</u> , 1986, 136:3427-3432
	AAAAA	Thompson et al., "Carcinoembryonic antigen gene family: molecular biology and clinical perspectives," <u>J. Clin. Lab. Analysis</u> , 1991, 5:344-366
	BBBBB	Vaporciyan et al., "Rapid analysis of leukocyte-endothelial adhesion," <u>J. Immunol. Meth.</u> , 1993, 159:93-100
	ACCCC	Virji et al., "Carcinoembryonic antigens (CD66) on epithelial cells and neutrophils are receptors for Opa proteins of pathogenic neisseriae," <u>Mol. Microbiol.</u> , 1996, 22:941-950
	ADDDE	Virji et al., "The N-domain of the human CD66a adhesion molecule is a target for Opa proteins of <i>Neisseria meningitidis</i> and <i>Neisseria gonorrhoeae</i> ," <u>Mol. Microbiol.</u> , 1996, 22:929-939
	AEEEE	Watt et al., "CD66 Identifies a Neutrophil-Specific Epitope Within the Hematopoietic System That Is Expressed by Members of the Carcinoembryonic Antigen Family of Adhesion Molecules," <u>Blood</u> , 1991, 78:63-74
	AFFFF	Watt et al., "CD66 Identifies the Biliary Glycoprotein (BGP) Adhesion Molecule: Cloning, Expression and Adhesion Functions of the BGpc Splice Variant," <u>Blood</u> , 1994, 84:200-210
	AGGGG	Wertheimer et al., "Intercellular adhesion molecule-1 gene expression in human endothelial cells," <u>J. Biol. Chem.</u> , 1992, 267:12030-12035
	AHHHH	Wikström et al., "Homophilic intercellular adhesion mediated by C-CAM is due to a domain 1-domain 1 reciprocal binding," <u>Exp. Cell Res.</u> , 1996, 227:360-366
	AIIII	Williams et al., "Receptor for mouse hepatitis virus is a member of the carcinoembryonic antigen family of glycoproteins," <u>Proc. Natl. Acad. Sci. USA</u> , 1991, 88:5533-5536
	AJJJJ	Wright and Meyer, "Phorbol esters cause sequential activation and deactivation of complement receptors on polymorphonuclear leukocytes," <u>J. Immunol.</u> , 1986, 136:1759-1764
	AKKKK	Yamanaka et al., "Analysis of heterophilic cell adhesion mediated by CD66b and CD66c using their soluble recombinant proteins," <u>Biochem. Biophys. Res. Comm.</u> , 1996, 219:842-847
▼	ALLLL	Yarden and Schlessinger, "Epidermal growth factor induces rapid, reversible aggregation of the purified epidermal growth factor receptor," <u>Biochemistry</u> , 1987, 26:1443-1441

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GE	AMMMM	Yokomori and Lai, "Mouse hepatitis virus utilizes two carcinoembryonic antigens as alternative receptors," <i>J. Virol.</i> , 1992, 66:6194-6199
	ANNNN	Zhou et al., "Homophilic Adhesion between Ig Superfamily Carcinoembryonic Antigen Molecules Involves Double Reciprocal Bonds," <i>J. Cell Biol.</i> , 1993, 122:951-960
✓	AOOOO	Zhou et al., "Specificity of anti-carcinoembryonic antigen monoclonal antibodies and their effects on CEA-mediated adhesion," <i>Cancer Research</i> , 1993, 53:3817-3822

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